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ABSTRACT

This study investigated whether there was a significant relationship between the predominant teaching approach to which an individual had been exposed during school life and: (1) level of communication apprehension (CA); and (2) preferred teaching approach if the individual became a teacher. A sample of 61 student teachers in the middle of their education program completed the Personal Report on Communication Apprehension (PRCA) at the beginning of the fall 1999 semester to identify their levels of CA. They also completed the Teaching Model on Expression and Exposure (TMEE). The TMEE1 identified preferred teaching approach. The TMEE2 identified the predominant teaching model to which participants were exposed in early school life. Researchers correlated PRCA scores with TMEE scores. Results indicate that high CA levels may be related to non-constructivist previous school experience. It may be appropriate to assume that people who have above average CA levels might have experienced more traditional teaching styles in the classroom setting. Since the PRCA and TMEE1 scores were low to non-significantly correlated, it is likely that regardless of respondents' high CA levels, they may have the potential to dismiss traditional models from their teaching style schemata and become constructivist practitioners. (Contains 20 references.) (SM)

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Effect of Teaching Philosophy Orientation on Students' Levels of Communication Apprehension

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Effect of Teaching Philosophy Orientation on the Students' Levels of Communication Apprehension

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Moving into the 21st century has brought a pervasive wave of revision and refinement at the teacher education level. The profile individual for the new century is idealized as one that is socially literate and thus communicates efficiently within and across cultures. Current constructivist teacher education programs endorsing a participation philosophy become intently concerned with examining the environments where knowledge is socially constructed and negotiated via informed consensus, and the impact of these environments on the individual learner. This paper will be based on initial research conducted in the College of Education and Counseling and preliminary analysis of data. Our university teacher education program is based on a Constructivist framework, is collaborative in nature and uses multiple sources of data to guide decisions regarding program design. This research is being conducted to further the knowledge base related to preparation of quality teachers, and is grounded in both communication apprehension theory and constructivist teaching and learning theory. To adequately prepare quality teachers able to teach well in diverse settings we must know more about the impact of their prior learning experience and communication styles. The data used for this study was gathered from 61 students in our undergraduate teacher education program. Two self-report measures were administered to the subjects, the Personal Report on Communication Apprehension (PRCA, Levin & McCroskey, 1990) and the Teaching Model Experience and Exposure (Maldonado & Penrod, 1999). Significant negative correlations were found at the sub-samples level.

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Shiffrin (1990) defines a participation framework as "the set of positions which individuals take in relation to an utterance" (p. 243). Within a participation framework there are norms of cooperation and competition as well as participation statuses occupied by the individuals interacting as animators, authors, figures and principals (Shiffrin, 1990). This suggests that the communication act is a pro-social activity in which the parties make adjustments to assume positions that are relevant to the exchange. The adjustments to the different statuses are accomplished through processes of framing and footing, which Shiffrin (1990) describes as framework alterations or alignment changes. Thus if the goal of the communication between the participants is cooperative rather than competitive (Shiffrin, 1990) it would also be reasonable to expect the statuses of the participation framework in the classroom to be shared with the student; however, in the traditional classroom this has not been the case.

Brooks & Brooks (1993) point out that the dominant approach in the classroom setting has been managerial. The roots of the management paradigm can be traced back to philosophers of the seventeenth century Francis Bacon, Rene Descartes, Isaac Newton and John Locke (Bowers & Flinders, 1990). They helped lay the foundation for the mechanicist perception of the natural and social world. Bowers & Flinders (1990) use the label "technicist" to refer to this paradigm "to communicate the growing importance given to reducing every aspect of the experience, including the dynamics of the classroom, to technique that can be rationally formulated for the purpose of improving prediction, control and efficiency" (p.5).

Within this model of Western rationality the student is perceived as a receiver, not a producer, of information. The teacher is idealized as the ultimate source of knowledge and a highly efficient manager. The image of the teacher portrayed in this traditional approach appears to confer him/her the right to assume all the participation statuses (Shiffrin, 1990). "The animator produces talk, that author creates talk, the figure is portrayed through talk, and the principal is responsible for talk. . . we expect animators, figures, authors, and principals to conduct themselves in routine ways, and we

can recognize these aspects of the self because of our normative expectations about the conduct appropriate for each position" (Shiffrin, 1990, p. 242). The teacher is the main animator or "talking machine, a body engaged in acoustic activity, an individual active in the role of utterance production" (Shiffrin, 1990, p. 242). Not only has the teacher been the preferred animator within the traditional teaching and learning framework, but he/she has also been the preferred author, figure and principal in the activity of discourse-making.

In turn, the image of the student is portrayed as a passive reproducer of information. Lindgren & Suter (1985) contend that the traditional approach to education hinders the student's inventions of alternative solutions and fosters mimetic activity. Drawing from Lindgren & Suter's (1985) assumption, it seems that under the traditional approach the social life of the school is shaped by a power structure that defines the teacher-students' relations in the academic context; the learners are given the contents and the interpretations which were previously given to their instructors. Thus the operation of the cooperative principle governing the participation framework (Shiffrin, 1990) is reduced to passive sub-mission to the knowledge authority, the teacher. The student would only be expected to assume, at testing times, the position of animator or "talking machine" reproducing the utterances resulting from the set of positions taken by the teacher. Within this discursive framework, discourse becomes a manifestation of power.

Paradigm Differences in the Classroom Setting

Brooks and Brooks (1993, p. 15) analyze the features of the above discussed teaching paradigms and the classroom environments they tend to reproduce. As a result of their analysis they present the following summary table:

Traditional Classroom

Curriculum is presented part to whole with emphasis in basic skills. Strict adherence to fixed curriculum is highly valued.

Curricular activities rely heavily on textbooks and notebooks.

Students are viewed as blank slates onto which information is etched by the teacher.

Teachers generally behave in a didactic manner, disseminating information to students.

Teachers seek the correct answer to validate student's learning.

Assessment of student learning is viewed as separate from teaching and occur almost entirely through testing.

Students primarily work alone.

Constructivist Classrooms

Curriculum is presented whole to part with emphasis on big concepts.

Pursuit of student questions is highly valued.

Curricular activities rely heavily on primary sources of data and manipulative materials.

Students are viewed as thinkers with emerging theories about the world.

Teachers generally behave in an interactive manner mediating the environment for the students.

Teachers seeks the students' points of view in order to understand students' present conceptions for use in subsequent lessons.

Assessment of student learning is interwoven with teaching and occurs through teacher observations of students at work and through students exhibitions and portfolios.

Students primarily work in groups

The characteristics of these two paradigms and the kinds of environments they create, lead into different sets of responses from the students. If the traditional paradigm operates, it would isolate the student and reduce his/her participation for the sake of covering the curriculum agenda as thoroughly as possible. On the other hand, the constuctivist paradigm would invite the student to generate and share ideas in groups. Increased versus decreased participation may contribute to the shaping of students'

predisposition's to communication interactions, versus the emergence of more or less enduring patterns of communication fears.

The above analysis finds support in Forrester's (1996) view which says that "Powerful speakers are able to impose their version of reality and marginalise alternative accounts" (p. 118). Within the traditional paradigm, for instance, a power relationship may deprive the student from the opportunity to act as discourse author and institutionalizes a teacher-centered parameter of communication. This would serve the purpose of the social group in authority. Fawler's (1985) says:

> Language is a major mechanism in the process of social construction. It is an instrument for consolidating and manipulating concepts and relationships in the area of power and control...not only it is used to enforce and exploit existing positions of authority and privilege in the obvious ways; the use of language continuously constitutes the statuses and roles upon which people base their claims to exercise power, and the statuses and roles which seem to require subservience (5, p. 63).

This binomial language-power relation highlighted by Fawler (1985) may be likened to the notion of *affordances* contributed by Forrester (1996): "those participatory and *conversational display structures* produced by participants in particular social settings. While they are available as directly cognizable phenomenon, they are not necessary simplistic or obvious, and we employ them so as to exert power and influence over others" (p. 117). In this regard, the teacher-telling *conversational display structure* may be justified by the traditional school system as a technical need to accomplish the mandated curriculum. This way the asymmetrical use of participation frameworks in the classroom becomes legitimized as an essential requirement to *teach the instructional objectives.*

This asymmetrical use of participation frameworks, legitimized in the name of teaching, fits Davis' (1988) concept of *paternalism:*

> It entails, by definition, limiting the freedom of another person by means of well-meant regulations. In this way benevolent intentions are combined with relations of power, the person in authority may restrict or coerce, but only for the good of the other (p. 23).

On the other hand a negotiated socio-academic practice, as proposed by the constructivist teaching model, would only be reasonable to allow the student to express her version of the world (Forrester, 1990). Learning would cease to be an issue of accomplishing the curriculum agenda and having the student reproduce units of content. Rather, it would be a process of extracting, reconstructing and negotiating meaning. Such kind of knowledge making activity parallels the concept of *author status* highlighted by Schiffrin (1990). The teacher-student relationship becomes more symmetrical because in the continuum of the participation framework all the participants can occupy the animator, figure, author and principal statuses. In short, within the constructivist paradigm the teacher-dominated power structure is transformed into a communal structure. The community's dialogue not the teacher's monologue is placed at the center of the academic activity, which is then infused with the energy of the synergistic dialogue in which all may participate. The teacher would hold Spivey's description of discourse meaning (1990): "In this conception, meaning for a text is a consensus of members of the group" (p. 23). From this perspective it is proper to assert that within a constructivist setting the potential for conversational action is enhanced.

As the gatekeeper of the curriculum agenda (Bowers & Flinders, 1990) the school system institutionalizes a linear view of language in which instances of academic interaction are reduced to information processes and behavioral responses (affordances). The behavioral performance of the students is expected to cohere with the curriculum

goals and objectives. Even the physical layout of the seating patterns in most classrooms conveys a non-verbal message which reflects a non-interactive communication model.

Communication in the Classroom Setting

In the academic literature it has been long recognized that "people varies greatly in their willingness to communicate" (McCroskey et al, 1991). For example, Daly, and McCroskey, (1984) say that the most popular explanation for communication anxiety in young children derives from punishment they received during attempts to communicate with others. Booth-Butterfield and Booth-Butterfield (1992) propose three categories of communication apprehension and avoidance that add to the understanding of such responses. The categories they propose are: (a) thinking, (b) feeling, and (c) behaving. Factors 'a' and 'b' are internal, whereas factor 'c' is externally expressed. For instance, some people perceive communication as an activity that can create unpleasant consequences; while others experience communication as a rewarding experience and seek it. The first type of perception may be shaped in the school environment where the students are socialized to communicate their ideas, and are rewarded for doing so. Within this kind of climate it would be more likely to find individuals who do not fear verbal interaction. Conversely, a classroom climate that constrains communication would reinforce negative perceptions and feelings as well as communication avoidance responses. Such avoidance responses might be regarded as a behavioral defense mechanism to counteract the negative consequences associated to verbal interaction. McCroskey et al (1991) says that "quiet children may be seen as the product of an environment that reinforces quietness" (p. 5). Drawing from McCroskey, it would be appropriate to infer that individuals with a significant exposure to a traditional school environment would be less predisposed to engage in conversational activity. As an effect of reinforcement (Van Kleeck & Daly, 1982) the individual would prefer to avoid communication. On the other hand, it also seems reasonable to infer that individuals with

a significant exposure to a constructivist school environment would develop positive patterns of predisposition to engage in conversational activity.

Current Study

Communication apprehension (CA) or "fear to communicate" (Ayres, 1997, p. 1) has been explained within a variety of dimensions. For instance, McCroskey (1984) has identified at least 3 of them: (a) situational, (b) trait, and (c) generalized context. This study attempts to deal with the first dimension because it assumes that the situational context of the classroom environment can either foster or deter CA responses. This perspective is consistent with McCroskey (in Ayres, 1997) who explains CA from a learning theory perspective:

> People develop communication apprehension because they learn to associate negative outcomes with talking. In essence, people find they can avoid experiencing fear associated with communication activities by restricting their engagement in communication encounters (p. 9).

The traditional classroom supports a directive mode of teaching that precludes interactive communication, and fosters CA. Being quiet, paying attention, taking notes, and talking when asked to do so, are the situational expected behaviors. Responses that do otherwise are likely to be considered unruly, and a potential reason for punishment. If the student perceives that his/ her attempts to communicate are counterproductive, this may lead to negative self-evaluation and fear of verbal interaction..

Research indicates that imagined interactions linked to social interactions "serve several functions including rehearsal for anticipated encounters...tend to occur before real interactions, are dominated by the self, and are equally pleasant or unpleasant" (Edwards; Honeycut & Zagacky, 1988, p. 23). Reinforcement of negative evaluation of interactive communication over a prolonged period of time would likely shape unpleasant pre-communicative imagined interactions (Edwards, Honeycut & Zagacky,

1988) and perpetuation of withdrawal responses. By constructing the social reality in advance (Fishbein & Ayzen, 1975; McLaughlin, Cody, & O'Hair, 1983; Sillars, 1980) the person imagines himself / herself producing a message and receiving a deceptive response.

Drawing from the imagined interaction theories allows one to assume that long term exposure to either a traditional or constructivist academic environment could affect the more permanent communication patterns the individual adopts for future communication encounters. It may also be hypothesized that the operational paradigm some teachers adopt in their professional life is the result of the predominant paradigm which they experienced during their school years as students, as well as the level of CA they developed as a result of such exposure.

While research on traditional and modern teaching approaches and CA are widely discussed in the literature, little is known about the relationship between the magnitude of exposure to a particular teaching approach and its relationship to (a) teacher's preferred teaching approach, and (b) teacher's level of CA.

In view of the above, the following question deserves careful consideration: Is there a significant relationship between the predominant teaching approach to which an individual has been exposed during his / her school life and (a) his / her level of CA, and (b) the teaching approach the individual prefers to use if he / she becomes a teacher?

Method

Sample, Measures and Procedures

A purposefully selected sample of 61 student teachers in the middle of their education program were given the Personal Report on Communication Apprehension (PRCA, Levin & McKroskey, 1990) at the beginning of the Fall 1999 semester to identify their levels of communication apprehension. The same subjects were also given The

Teaching Model on Expression and Exposure (TMEE) self-report developed by the authors.

The Personal Report on Communication Apprehension (PRCA, Levin & McKroskey, 1990) is a self report measure with 24 items that permit computations of one total score and 4 subscales: (a) Group Discussion, (b) Meetings, (c) Interpersonal Conversations, and (c) Public Speaking.

The Teaching Model Exposure and Expression (Maldonado & Penrod, 1999) is a self report measure with 48 items that permit the computations of one total score and partial scores for two subscales: (a) The Expression subscale (TMEE1) designed to identify the subjects preferred teaching approach, and (b) The Learning Experience subscale (TMEE2) designed to identify the predominant teaching model to which the subjects were exposed during their earlier school life. The first step in the process of pilot testing the TMEE for construct validity began by asking 2 experts in constructivist theory to assess the test items in their ability to differentiate between traditional and constructivist practice. The reviewers looked at whether the items represented the defined theoretical domain and recommended modifications for 3 out of a total of 48 items. Once the changes were made on the basis of the reviewers' recommendations, the TMEE was administered to 5 well-recognized constructivist practitioners. The high scores obtained by all 5 practitioners revealed that it was in fact measuring the intended domain. Once these 5 practitioners had been administered the TMEE, the next step was to ask them to rate the test items in their ability to differentiate between traditional and constructivist practices. The result was 97% of inter-rater agreement.

Data Analysis

A Pearson Product Moment Coefficient of Correlation was used to statistically analyze the data. Subjects' scores on the PRCA were correlated with (a) their scores on

the TMEE1, and (b) with their scores on the TMEE2. The researchers divided the sample into two subsamples (a) a total sample (n = 61), and (b) a subsample (n =16) of those students who reflected above average CA levels. The decision of drawing an above average CA sub-sample (n = 16) was based on the following rationale:

- According to McCroskey (1997) only 20% of the general population reflect above average CA. The researchers found that a 26% (n = 16) out of the total sample (n = 61) were above average.
- The PRCA is generally used to diagnose individual cases that show signs of CA so that further decisions about treatment can be made. The researchers were mainly interested in above average CA subjects.

Due to the rationale above, the authors caution the readers regarding the potential value inflation of the results that the use above average scores might carry. Other important limitations of the study are related to (a) the use of self-report measures, and (b) the small homogeneos and non-randomly selected sample size (n = 61).

Results

The core objectives driving this study were as follow:

(a) To determine if subjects with high CA levels, who are exposed to a predominant-traditional teaching approach during their school years, tend to use the same predominant teaching approach when they become teachers.

(b) To determine if there is a significant relationship between the CA levels of subjects planning to be teachers and their degree of exposure to a traditional school environment during their school life.

(c) To determine if there is a significant relationship between the CA levels of subjects planning to be teachers and their degree of exposure to a constructivist school environment during their school life.

(d) To determine if the scores of subjects on the PRCA correlate significantly with their scores on the TMEE.

A Pearson Product Moment Correlation (r) for the total data revealed the score on the PRCA and the score on the TMEE1 were low to non-significantly ($r = .153$, $n = 61$, $p<.05$, two tailed) related. The correlation score on the PRCA and the score on the TMEE2 were also low to non-significantly ($r = -.05$, $n = 61$, $p<.05$, two tailed) related.

The score on the PRCA and the score on the TMEE2 for the subsample data were significantly related ($r = -.509$, $n = 16$, $p<.05$, two t ailed). This significant preliminary result seem to indicate that higher levels of CA may be related to low levels of experience with constructivist classrooms and constructivist teachers.

For the sub-sample, the score on the PRCA and the score on the TMEE1 were low to non significant correlated ($r = -.003$, $n = 16$, $p<.05$, two tailed).

Discussion

The purpose of this study was to find out how high levels of fear to communicate (CA) would relate to subjects' teaching practice (TMEE1). Another purpose was to explore any potential relationship between high levels of CA and the subjects' learning experience during their early school life (TMEE2).

In examining the core objectives advanced for this study, the researchers failed to find significant correlation between the proposed variables while dealing with the total sample ($n = 61$). There is no support at the level of the total data to assume that fear to communicate (PRCA) would relate ($r = .153$, $n = 61$, $p<.05$, two tailed) to subjects'teaching practice (TMEE1); or to assume that fear to communicate (PRCA) would relate ($r = -.05$, $n = 61$, $p<.05$, two tailed) to subjects' previous learning experience (TMEE2).

However, it is also apparent from our result with the subsample ($n = 16$) reflecting above average CA levels, that there might be an important relationship between the subjects' high CA levels and the subjects' learning experience (TMEE2) that is worthy of further consideration ($r = -.509$, $n = 16$, $p<.05$, two tailed).

Conclusions and Recommendations

The findings in this study suggest that high CA levels may be related to non-constructivist previous school experience. It may be appropriate to assume that subjects who score above average CA levels might have experienced more traditional teaching styles in the classroom setting. At the same time, since the score on the PRCA and the score on the TMEE1 were low to non significantly correlated ($r = -.003$, $n = 16$, $p<.05$, two tailed), it is the authors' interpretations that regardless of the subjects' high CA levels, they may have the potential to dismiss traditional models from their teaching style schemata and become constructivist practitioners.

There might be other interpretations we would have to ponder and research. For instance, research on teacher training (Moseley and Maldonado, 1999) suggests that while some individuals engaged in teaching may have a clear mental picture of effective constructivist strategies, they may also lack the ability to implement such knowledge in their own practice. For these individuals the problem is one of transition between constructivist theory and constructivist practice. If this were the case with our sample, we might be looking at results that reflect intellectual knowledge about constructivist theories of instruction and positive, but biased, self-perception and self-appraisal of teaching image only, not authentic constructivist practice style.

In view of the above, and taking into account the limitations of this study, there are some relevant recommendations worthy of consideration for purposes of study replication and extension:

- Increasing the sample size.
- Refining the instrument (TMEE) to evaluate classroom experiences and plans to teach.
- Conducting a qualitative follow up study to verify the teaching methods used by those who do indicate high levels of CA.
- Conducting a multiple correlation study that takes into account other variables believed to be associated with high CA levels.
- Conducting follow up study with heterogeneous samples from diverse backgrounds, at several teacher education universites, and colleges.

REFERENCES

Ayres, Joe. (1997). A component theory of communication apprehension: Motivation negative evaluation, and communication competence as predictors of state communication apprehension. Inc, Ruston: WA; Communication Ventures.

Booths-Butterfield, Melanie, & Booth-Butterfield, Steve. (1992). Communication apprehension and avoidance in the classroom. The Burgees Series of Communication Instruction. Edina, Minnesota, Burgues International Group, Inc.

Bowers, C. A., and Flinders, D. J. (1990). Responsive teaching: An ecological approach to classroom patterns of language, culture and thought. New York, NY: Teachers College Press.

Daly, J. A., & McCroskey, J. C. (Eds) (1984) Avoiding communication: Shyness, Reticence, and communication apprehension. Beverly Hills, California: Sage.

Edwards, Renee., J. M. Honeycutt., & K. S. Zagacky. (1988) Imagined interactions as an element of social cognition. *Western Journal of Speech Communication, 52, 23-45.*

Fishbein, M., & I. Ajzen. (1975). Belief, attitude, intention and behavior. Reading; Mass. Adison-Wesley.

Forrester, Michael A. (1996). Power relations in language. *Psychology of language.* London, UK: Sage Publications.

Levine, T. R., & McCroskey, J. C. (1990). Measuring trait communication apprehension: A test of rival measurement models of the PRCA-24. *Communication Monographs, 57, 62-72.*

Maldonado, M. E., & Moseley, S. (1997) Constructivist approach to the teaching learning process. *Paper presented at the Washington State Association for Supervision & Curriculum Development (WSASCD) Annual Conference. Re: Forming Education, What is Essential?* Seattle, WA, 2/1997.

McCroskey, James., & Richmond, P. Virginia. (1991). Quiet children and the classroom teacher. Bloomington, Indiana, Speech Communication Association. ERIC Clearinghouse on Reading and Communication Skills.

McLaughlin, M., M. J. Cody, & H. D. O'Hair. (1983). The management of failure events: Some contextual determinants of accounting behavior. *Human Communication Research,* 9, 208-224

National Council for Accreditation of Teacher Education, (NCATE) Overview. (1996). Continuing Acreditation Visit. College of Education Washington State University.

Nofsinger, E. Robert. (1991). Conversational action. Everyday conversation: Interpersonal communication texts. Newbury: Sage Publications.

Richmond, P. V., & McCroskey, C. James. (1997). Communication apprehension, avoidance, and effectiveness. Allyn and Bacon. Needham Heights, MA.

Shiffrin, Deborah. (1990). The management of a cooperative self during argument: The role of opinion and stories. Cambridge: Cambdridge University Press.

Sillars, A. L. (1980). The sequential and distribution structure of conflict interactions as a function of distributions concerning the locus of responsibility and stability conflicts. In D. Nimo (Ed.), *Communication Yearbook 4* (217-235). New Brunswick: NJ.

Spivey, N. Nancy. (1997). The constructivist metaphor: Reading, writing and the making of meaning. San Diego, CA: Academic Press.

Thompson, Leigh. (1990). Negotiation behavior and outcomes: Empirical evidence and theoretical issues. *Psychological Bulletin.*

Vygotsky, L. S. & Luria, A. R. (1930/1933). Studies on the history of behavior: ape, primitive and child. Hillsdale, NJ: Lawrence Erlbraum.

Yackel, E., & Cobb, P. (1995). Constructivist, emergent, and sociocultural perspectives in the context of a developmental research. *Psychology of Mathematics Education, 1, 3-25.*